

# CLAIMS

What is claimed is:

1. A method for completing a well, comprising:  
lowering a tubular string into said well;  
selectively filling said tubular string with fluid as said tubular string is lowered into said well;  
selectively circulating fluid out of said tubular string such that said fluid is directed downwardly as said fluid leaves said tubular string; and  
selectively pumping cement out of said tubular string such that said cement is directed upwardly as said cement leaves said tubular string.
2. The method of Claim 1, further comprising:  
selectively blocking a passageway through a bottom end of said tubular string.
3. The method of Claim 1, further comprising:  
selectively blocking down jets in said tubular string.
4. The method of Claim 1, further comprising:  
selectively opening up jets in said tubular string.
5. The method of Claim 1, wherein said step of selectively filling further comprises:  
selectively permitting fluid flow from said well into said tubular string.

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6. Float collar/ shoe equipment for use in lowering a tubular string into a wellbore, said equipment comprising:  
an outer tubular member and an inner tubular member moveable between a first position and a second position; and  
one or more valves positioned between said outer tubular member and said inner tubular member when said inner tubular member is in said first position.

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7. Float collar/ shoe equipment of Claim 6, further comprising:  
one or more valve seats positioned between said outer tubular member and said inner tubular member.
8. Float collar/ shoe equipment of Claim 6, wherein said inner tubular member is moveable with respect to said outer tubular member from said first position to a second position for uncovering said valves and said valve seats.
9. Float collar/ shoe equipment of Claim 6, wherein said outer tubular member defines one or more passageways therethrough which are blocked by said inner tubular member in said first position, said one or more passageways being opened to permit fluid flow from within said tubular string to outside of said tubular string when said inner tubular member is moved from said first position to a second position.
10. Float collar/ shoe equipment of Claim 6, further comprising a seat secured to said inner tubular member for receiving a drop member.
11. Float collar/ shoe equipment of Claim 6, wherein said one or more valves comprises a plurality of flapper valves.
12. Float collar/ shoe equipment of Claim 6, wherein said one or more valves are held in an open position when said inner tubular member is in said first position.
13. Float collar/ shoe equipment operable for use in lowering a tubular string into a wellbore, said tubular string having an inside and an outside external to said inside, said well equipment comprising:  
an outer tubular member forming a portion of said tubular string and having at least one up jet therein, each of said at least one up jets providing a passageway between said inside and said outside of said tubular string; and

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a moveable member, said moveable member being mounted to block fluid flow through said at least one up jet in a first position, said moveable member permitting fluid flow through said up jet in a second position.

14. Float collar/ shoe equipment of Claim 13, further comprising:

at least one down jet, wherein said moveable member is mounted to permit fluid flow through said at least one down jet in said first position, said moveable member being mounted to block fluid flow through said at least one down jet in said second position.

15. Float collar/ shoe equipment of Claim 13, further comprising one or more valve seats, said one or more valve seats being insulated from fluid flow in said first position and being selectively engageable with fluid flow in said second position.

16. Float collar/ shoe equipment of Claim 15, further comprising one or more valves for operation with said one or more valve seats.

17. Float collar/ shoe equipment operable for use in lowering a tubular string into a wellbore, said tubular string having an inside and an outside external to said inside, said well equipment comprising:

a moveable member operable for selectively controlling fluid flow through one or more jets, said jets directing fluid from said inside of said tubular string to said outside of said tubular string; and

a drop member mounted adjacent to said moveable member, said drop member being operable in response to fluid pressure for engaging said moveable member.

18. Float collar/ shoe equipment of Claim 17, further comprising one or more valves, said moveable member being operable for activating said one or more valves for controlling fluid flow through said tubular string.

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19. A method for completing a well operable for use in lowering a tubular string into a wellbore, said tubular string having an inside and an outside external to said inside, said method comprising:  
insulating one or more valves from fluid flow through said tubular string such that said valves are held in an open position; and  
selectively uncovering said valves for controlling fluid flow through said tubular string.
20. The method of Claim 19, wherein said step of selectively uncovering further comprises dropping a member into said tubular string.
21. The method of Claim 19, further comprising:  
selectively closing one or more passageways between said inside of said tubular string and said outside of said tubular string.
22. A method for a well for use in installing a tubular string into a wellbore, said tubular string having an inside and an outside external to said inside, said method comprising:  
pumping into said tubular string and through one or more down jets while installing said tubular string into said wellbore; and  
selectively blocking said one or more down jets.
23. The method of Claim 22, further comprising:  
selectively blocking one or more up jets.
24. The method of Claim 22, further comprising:  
selectively exposing one or more check valves to fluid pressure.
25. The method of Claim 22, wherein said step of selectively blocking further comprises releasing a drop element to thereby slide a moveable member.
26. A method for making flow equipment, said method comprising:

providing a first shoulder within an outer tubular member of said float equipment;  
supporting an inner tubular member against said first shoulder;  
mounting one or more one-way valves with respect to said inner tubular member; and  
providing a guide shoe with a second shoulder for securing said inner tubular member  
with respect to outer tubular member.

27. The method of Claim 26, further comprising  
forming an annulus between said inner tubular member and said outer tubular member,  
and  
mounting said one or more valves in said annulus.

28. The method of Claim 26, further comprising:  
forming at least one up jet in said outer tubular member, and  
forming at least one down jet in said outer tubular member.

29. A method for completing a well having a tubular string therein, said method comprising:  
providing a receptacle within said tubular string for receiving a drop member;  
mounting said receptacle within said tubular string utilizing a breakable member such that  
said breakable member breaks at a selected first pressure to permit movement of said receptacle;  
providing pressure responsive equipment in said tubular string at a well depth above said  
receptacle, said pressure operated equipment being operable at a second pressure, said first  
pressure being greater than said second pressure;  
releasing said drop member to seal said receptacle;  
pumping into said tubular string to produce a second pressure in said tubular string so as  
to thereby operate said pressure responsive equipment in said tubular string; and  
subsequent to operating said pressure responsive equipment at said second pressure, then  
pumping into said tubular string to produce said first pressure for breaking said breakable  
member.

30. The method of Claim 29, further comprising  
utilizing pressure applied to said drop member sealed in said receptacle to uncover one  
or more valves for controlling fluid flow through said tubular string.
31. The method of Claim 29, further comprising:  
utilizing pressure applied to said drop member to block off fluid flow from one or more  
down jets.
32. The method of Claim 29, further comprising:  
utilizing pressure applied to said drop member to open one or more up jets to thereby  
provide fluid flow through said up jets.
33. The method of Claim 29, further comprising:  
utilizing pressure applied to said drop member to open one or more up jets to thereby  
provide fluid flow through said up jets.
34. The method of Claim 29, further comprising:  
prior to said step of releasing said drop member for sealing said receptacle, pumping fluid  
through said receptacle for circulating fluid within said well.
35. The method of Claim 34, further comprising:  
pumping fluid through down jets.

- Sub 27 36. Well equipment operable for use in lowering a tubular string into a wellbore, said tubular  
string having an inside and an outside external to said inside, said well equipment  
comprising:  
an outer tubular member forming a portion of said tubular string and having at least one  
down jet therein, each of said at least one down jets providing a passageway between said inside  
and said outside of said tubular string; and

Sub 32 a moveable member, said ~~moveable member~~ being moveable from a first position to a second position, said moveable member being mounted to permit fluid flow through said at least one down jet in said first position, said moveable member being mounted to block fluid flow through said at least one down jet in said second position.

37. The well equipment of Claim 36, further comprising:

at least one up jet, said moveable member being mounted to block fluid flow through said at least one up jet in said first position, said moveable member permitting fluid flow through said up jet in said second position.

38. The well equipment of Claim 36, further comprising one or more valve seats, said one or more valve seats being insulated from fluid flow in said first position and being selectively engageable with fluid flow in said second position.

39. The well equipment of Claim 38, further comprising one or more valves for operation with said one or more valve seats.

40. Well equipment operable for use in installing a tubular string into a wellbore, said well equipment comprising:  
one or more up jets formed in said tubular string; and  
one or more down jets formed in said tubular string.

41. The well equipment of Claim 40, further comprising:

one or more moveable members, said one or more moveable members being operable for selectively controlling fluid flow through at least one of said one or more up jets and said one or more down jets.

Sub 33 42. The well equipment of Claim 40, further comprising:

one or more float valves to prevent reverse flow through said tubular string.

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43. Well equipment operable for use in lowering a tubular string into a wellbore, said well equipment comprising:  
one or more first jets formed in said tubular string;  
one or more second jets formed in said tubular string; and  
one or more moveable members, said one or more moveable members being operable for selectively opening said one or more first jets for fluid flow therethrough and for closing said one or more second jets to prevent fluid flow therethrough.
44. The well equipment of Claim 43, further comprising:  
one or more float valves to prevent reverse flow through said tubular string.
45. The well equipment of Claim 43, wherein said one or more first jets are up jets.
46. The well equipment of Claim 43, wherein said one or more second jets are down jets.

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